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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/525,670

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Yujin Zheng

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EXAMINER

JONES, JAMES

ART UNIT

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2873

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/525,670	Applicant(s) ZHENG ET AL.	
	Examiner JAMES C. JONES	Art Unit 2873	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 2/21/2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☒ Claim(s) 3-9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>2/21/2008 and 3/21/2008</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

The information disclosure statement (IDS) submitted on 2/21/2008 and 3/21/2008 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement have been considered by the examiner.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamaguchi et al. (5513201) hereafter '201 in view of Gao et al. (20030151820) hereafter '820.

Regarding claim 1 '201 discloses an optical condenser device comprising (fig. 56): a first light source (fig. 3, 54, 55, 56 "10" (the light source that will be transmitted by the combiner) as the "first light source"); a second light source (fig. 3, 54, 55, 56, col. 7, lines 54-60 "10" (the light source that delivers the light that will be reflected by the combiner) as the "second light source"); and a first optical combiner for combining beams from the first light source with beams from the second light source (fig. 56, col. 28, lines 22-40), the first light source having a first semiconductor laser array in which a plurality of semiconductor laser arrays, each having a plurality of active layers are aligned in parallel in a first direction (fig. 3, 54, 55, 56, col. 7, lines 54-60 "12" as the

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“active layer”) a first collimator lens for collimating a plurality of beams in a plane perpendicular to the first direction, which beams are emitted from the plurality of active layers (fig. 3, 55, 56, col. 8, lines 4-8 “20” (the collimating lens that collimates the light from the first light source) as the “first collimating lens”), and a first beam converter for receiving the beams collimated by the first collimator lens to rotate the transverse section of each beam by substantially 90.degree. (fig. 3, 55, 56, col. 8, lines 13-16 “30” as the “first beam converter”), the second light source having a second semiconductor laser array in which a plurality of semiconductor laser arrays, each having a plurality of active layers are aligned in parallel in a second direction (fig. 3, 54, 55, 56, col. 7, lines 54-60 “10” as the “second light source” and “12” as the “active layer”), a second collimator lens for collimating a plurality of beams in a plane perpendicular to the second direction, which beams emitted from the plurality of active layers (fig. 3, 55, 56, col. 8, lines 4-8 “20” as the “second collimator lens”), and a second beam converter for receiving the beams collimated by the second collimator lens to rotate the transverse section of each beam by substantially 90.degree. (fig. 3, 55, 56, col. 8, lines 13-16 “30” as the “second beam converter”), and the first optical combiner having one or more transmitting portions for receiving and transmitting the beams emitted from the first beam converter (fig. 56, col. 28, lines 30-40) and one or more reflecting portions for receiving and reflecting the beams emitted from the second beam converter to combine the beams transmitted through the transmitting portions with the beams reflected by the reflecting portions (fig. 56, col. 28, lines 22-40) but does not specifically disclose the laser array being stacked in a perpendicular direction. ‘820 teaches that in an optical

condenser device having refracting and reflecting optical elements (fig. 1A) that it is desirable to have multiple laser arrays stacked in a perpendicular direction (fig. 1A) for the purpose of providing a sufficient amount light through out the system. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have included a plurality of laser arrays, stacked in a perpendicular direction, in the device of '201 as modified by '820 since '820 teaches that in an optical condenser device having refracting and reflecting optical elements that it is desirable to have multiple laser arrays stacked in a perpendicular direction for the purpose of providing a sufficient amount light through out the system.

Regarding claim 2 '201 and '820 disclose and teach as set forth above and '820 further teaches that in an optical condenser device having refracting and reflecting optical elements that it is further desirable to also include the transmitting portions and the reflecting portions of the first optical combiner to both have strip-like shapes elongated in the direction of stacking of the laser arrays (fig. 1A, 2, par. [0054]-[0061]), and the first optical combiner is a flat plate having the transmitting portions and the reflecting portions positioned alternately (fig. 1A) for the purpose of effectively transmit and reflect light. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have included the strip-like optical combiner having alternating transmitting and reflecting portions in the device of '201 as modified by '820 since '820 further teaches that in an optical condenser device having refracting and reflecting optical elements that it is further desirable to also include the transmitting portions and the reflecting portions of the first optical combiner to both have

strip-like shapes elongated in the direction of stacking of the laser arrays, and the first optical combiner is a flat plate having the transmitting portions and the reflecting portions positioned alternately for the purpose of effectively transmit and reflect light.

Allowable Subject Matter

Claims 3-9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: with respect to the allowable claims, none of the prior art either alone or in combination disclose or teach of the claimed combination of limitations to warrant a rejection under 35 USC 102 or 103. Specifically, in reference to claim 3, none of the prior art either alone or in combination disclose or teach of the claimed optical condenser specifically including as the distinguishing features in combination with the other limitations the claimed “front surface of the first optical combiner opposes the first light source, and the back surface of the first optical combiner opposes the second light source”.

Regarding claim 4 (and its dependents), none of the prior art either alone or in combination disclose or teach of the claimed optical condenser specifically including as the distinguishing features in combination with the other limitations the claimed “the second optical combiner having one or more transmitting portions for receiving and transmitting the beams combined by the first optical combiner and one or more reflecting portions for receiving and reflecting the beams emitted from the third beam

converter to combine the beams transmitted through the transmitting portions with the beams reflected by the reflecting portions”.

Regarding claim 5 (and its dependents) none of the prior art either alone or in combination disclose or teach of the claimed optical condenser specifically including as the distinguishing features in combination with the other limitations the claimed “the second optical combiner having one or more transmitting portions for receiving and transmitting the beams emitted from the third beam converters and one or more reflecting portions for receiving and reflecting the beams combined by the first optical combiner to combine the beams transmitted through the transmitting portions with the beams reflected by the reflecting portions”.

Response to Arguments

I. Applicant's arguments with respect to claims 1 and 2 have been considered but are moot in view of the new ground(s) of rejection.

II. The applicant has overcome the 35 USC 112 rejection of claim 5 by thoroughly explaining and clearly pointing out where in the applicant's specification support for the enablement of claim 5 can be found (page 21, lines 15-25 of applicant's instant specification).

III. Prior art, Anikitchev (20040252743) is no longer being considered as prior art due to the applicant submitting a verified translation of Japanese Patent applicant No. 2002-253852 which filed in Japan on August 30, 2002. The effective filing date of Anikitchev (20040252743) is after the priority date to which the instant application is entitled.

III. Prior art, Hirro (5048030) has been overcome due to applicant's highly persuasive arguments. Therefore, a new non-final rejection is now being made.

IV. Upon further consideration and as discussed with applicant's representative, the objection to the abstract has been withdrawn since the abstract is less than 150 words.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES C. JONES whose telephone number is (571)270-1278. The examiner can normally be reached on Monday thru Friday, 8 a.m. to 5 p.m. est. time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Mack can be reached on (571) 272-2333. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/James C. Jones/
Examiner, Art Unit 2873
6/6/2008

/Jordan M. Schwartz/
Primary Examiner, Art Unit 2873